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laying the at least a second slurry in a substantially non-mixing manner on the slurry from (a) to produce a composite mat having at least two substantially distant layers with different fiber compositions or densities. Alternatively or in addition the method may further comprise (d) providing at least one surface layer on the mat and affixing the at least one surface layer to the mat with a binder. The method typically further comprises curing the binder from (d) and drying the web in a drying oven. For example (a) is further practiced using heat activated binder powder or fibers in the slurry.

IN THE CLAIMS

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Please cancel claims 2, 3, 6 and 34, and amend claim 1 as follows:²

1. (AMENDED) A composite product comprising an inner layer and outer layers, said outer layers being made from cured non-woven mats of chopped strands comprising:

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- a plurality of fibers disposed in a non-woven configuration to define a mat;
- at least 20% of said fibers in fiber bundles having between 5 - 450 fibers per bundle and the length of said bundles being substantially the same as the lengths of the fibers forming said bundles;
- at least 85% of said fibers of said fiber bundles have a diameter of between about 7 - 35 microns;
- at least 85% of said fibers in said bundles have a length of between 5 - 100 mm; wherein
- said fibers in said fiber bundles are held together with a substantially water insoluble sizing; and wherein
- said inner layer is formed of at least one of inexpensive fibers, scrap fibers, and material of significantly lower density than said outer layers.

² Pursuant to Rule 121(c), a marked-up version of the amended claims appears in Appendix II hereto and shows all changes by underlining added language and bracketing deleted language.

B3 4. (AMENDED) A composite product as recited in claim 1 wherein at least 10% of the fibers in said fiber bundles comprise reinforcement fibers selected from the group consisting essentially of glass, aramid, carbon, polypropylene, acrylic, and PET fibers, and combinations thereof.

5. (Amended) A composite product as recited in claim 1 wherein at least 50% of the fibers in said fiber bundles comprise glass fibers.

7. (AMENDED) A composite product as recited in claim 4 wherein at least 85% of said fibers in said fiber bundles are selected from said group.

B4 8. (AMENDED) A composite product as recited in claim 1 wherein at least 85% of said fibers in said fiber bundles have a length of between about 7 - 50 mm.

9. (AMENDED) A composite product as recited in claim 1 wherein said mat has a density of between about 50-900 g/m².

10. (AMENDED) A composite product as recited in claim 1 wherein at least 85% of said fibers in said fiber bundles have between 10 - 450 fibers per bundle and a length substantially the same as the length of said fiber bundle, and wherein the sizing is epoxy resin or PVOH.

B5 11. (AMENDED) A composite product as in claim 1, wherein said mats have a substantially uniform density of less than 75 g/m².

12. (AMENDED) A composite product as in claim 1, wherein said mats have a substantially uniform density of between about 50-150 g/m².

B6 37. (AMENDED) A non-woven mat of chopped strands, comprising:
a plurality of fibers disposed in a non-woven configuration to define a mat;
at least 20% of said fibers in fiber bundles having between 5-450 fibers per bundle and the length of said bundles being substantially the same as the lengths of the fibers forming said bundles;

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CONT.

at least 85% of said fibers of said fiber bundles have a diameter of between about 7-500 microns; said fibers in said fiber bundles being held together with a substantially water insoluble sizing, wherein said mat is manufactured by a foam process; and wherein the mat has at least two layers, which exhibit different physical or chemical properties.

38. (AMENDED) A non-woven mat as recited in claim 37, wherein said mat is manufactured by using a foam process with a headbox to form at least two layers of said mat having substantially different properties which include at least one of different density, different material, different reinforcement threads, or different reinforcement webs.

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Please cancel claims 39 and 40.

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Please add the following new claims:

41. (NEW) A non-woven mat as recited in claim 37, wherein, in at least one layer, at least 85% of said fibers in said bundles have a length of between 5-100 mm.

42. (NEW) A non-woven mat as recited in claim 37 wherein, in at least one layer, at least 85% of said fibers in said bundles have a diameter of between 7-35 microns.

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43. (NEW) A non-woven mat as recited in claim 37 wherein, in at least one layer, at least 10% of the fibers in said fiber bundles comprise reinforcement fibers selected from the group consisting essentially of glass, aramid, carbon, polypropylene, acrylic, and PET fibers, and combinations thereof.

44. (NEW) A non-woven mat as recited in claim 37 wherein, in at least one layer, at least 50% of the fibers in said fiber bundles comprise glass fibers.

45. (NEW) A non-woven mat as recited in claim 37 wherein, in at least one layer, at least 85% of said fibers in said bundles have a length of between 5 - 100 mm, and

wherein at least 85% of said fibers in said bundles have a diameter of between 7 - 35 microns.

46. (NEW) A non-woven mat as recited in claim 43, wherein, in at least one layer, at least 85% of said fibers in said fiber bundles are selected from said group.

47. (NEW) A non-woven mat as recited in claim 37 wherein, in at least one layer, at least 85% of said fibers in said fiber bundles have a length of between about 7 - 50 mm.

48. (NEW) A non-woven mat as recited in claim 37 wherein, in at least one layer, said mat has a density of between about 50 - 900 g/m².

49. (NEW) A non-woven mat as recited in claim 37 wherein, in at least one layer, at least 85% of said fibers in said fiber bundles have between 10 - 450 fibers/bundle and a length substantially the same as the length of said fiber bundle, and a diameter between about 7 - 35 microns; and wherein the sizing is epoxy resin or PVOH.

50. (NEW) A non-woven mat as recited in claim 37 wherein substantially all the fibers in the bundles are substantially straight.

51. (NEW) A non-woven mat of chopped strands, comprising:

a plurality of fibers disposed in a non-woven configuration to define a mat, at least 20% of said fibers in fiber bundles having between 5-450 fibers per bundle and the length of said bundles being substantially the same as the lengths of the fibers forming said bundles, and wherein at least 85% of said fibers of said fiber bundles have a diameter of between about 7-500 microns; wherein said fibers in said fiber bundles are held together with a substantially water insoluble sizing, and
wherein the integrity of the mat is increased by means of heat activated binder fibers.

52. (NEW) A non-woven mat as recited in claim 51 wherein at least 85% of said fibers in said bundles have a length of between 5-100 mm.

53. (NEW) A non-woven mat as recited in claim 52 wherein at least 85% of said fibers in said bundles have a diameter of between 7-35 microns.

54. (NEW) A non-woven mat as recited in claim 53 wherein at least 10% of the fibers in said fiber bundles comprise reinforcement fibers selected from the group consisting essentially of glass, aramid, carbon, polypropylene, acrylic, and PET fibers, and combinations thereof.

55. (NEW) A non-woven mat as recited in claim 51 wherein at least 50% of the fibers in said fiber bundles comprise glass fibers.

56. (NEW) A non-woven mat as recited in claim 51 wherein at least 85% of said fibers in said bundles have a length of between 5-100 mm, and wherein at least 85% of said fibers in said bundles have a diameter of between 7-35 microns.

57. (NEW) A non-woven mat as recited in claim 54 wherein at least 85% of said fibers in said fiber bundles are selected from said group.

58. (NEW) A non-woven mat as recited in claim 51 wherein at least 85% of said fibers in said fiber bundles have a length of between about 7-50 mm.

59. (NEW) A non-woven mat as recited in claim 51 wherein said mat has a density of between about 50-900 g/m².

60. (NEW) A non-woven mat as recited in claim 51 wherein at least 85% of said fibers in said fiber bundles have between 10-450 fibers/bundle and a length substantially the same as the length of said fiber bundle, and a diameter between about 7-35 microns; and wherein the sizing is epoxy resin or PVOH.